

INFORMATION DISCLOSURE STATEMENT

To: **THE ASSISTANT COMMISSIONER FOR PATENTS**
WASHINGTON, D.C. 20231

Sir,

This is a continuation application of U. S. Patent application Ser. No.
10/122,927, filed April 16, 2002. No new matter has been added to the
specifications or drawings. The claims 1-6 are now abandoned by the inventor

The following Information Disclosure statement accompanies the patent application of:

Inventors: Eckhard C.A. Schwarz

For:

APPARATUS AND PROCESS FOR MAKING FIBROUS PRODUCTS OF BI-
COMPONENT MELT-BLOWN FIBERS OF THERMOPLASTIC POLYMERS AND
THE PRODUCTS MADE THEREBY

REFERENCES CITED

<u>PATENT NO.</u>	<u>INVENTOR</u>	<u>DATE</u>	<u>U.S. CLASS</u>
5,476,616	E.C.A. Schwarz	Dec. 19, 1995	264/6; 264/12; 425/7; 425/72.2; 156/167
6,057,256	D.L. Krueger et al.	May 2, 2000	442/400; 428/373 428/374; 428/229; 428/224; 428/280; 264/171; 442/400; 442/361; 442/362
3,039,174	N Radow et al.	June 19, 1962	
2,931,091	A.L. Brien	April 5, 1960	

PUBLISHED PCT APPLICATION

<u>PUB. NO.</u>	<u>INVENTOR</u>	<u>DATE</u>	<u>PCT CLASS</u>	<u>INT.AP.NO.</u>
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COMMENTS

This patent application concerns a novel apparatus and process to make melt-blown products of bi-component fibers each having at least two dissimilar thermoplastic polymers along its length and forming a cross-section of either sheath/core or side-by-side semi-circle structures. By assembling a melt-blowing spinnerette having two sets of nozzles arranged in multiple rows and each set being fed from a separate polymer supply chamber, bi-component fibers of various compositions can be obtained. In this design, a first, smaller, nozzle is inserted into a second, larger, nozzle. Each nozzle pair is surrounded by a circumferential gas orifice. As the bi-component extrudate exits the nozzles, it is accelerated and attenuated into fine fibers. The arrangement of the nozzle pairs in multiple rows and the gas supply to each nozzle is described in US Patent No. 5,476,616. By having the polymer pairs completely separated and not exposed to laminar flow inside the spinneret as is common in older designs, polymers of vastly different properties can be combined into new fiber structures.

The fiber structures described in this patent application, which had significant and dramatic results, has not been disclosed or used before, and is unobvious to one skilled in the art. Bi-component fibers have mainly been used to form crimped structures or bonded webs. The claims sought pertain to new melt-blown webs made by a new and unique process.

By: 

Eckhard C.A. Schwarz

PATENT AGENT

REG. NO. 28,263

March 8, 2004